UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/650,670	08/30/2000	Yusaku Kurihara	046601-5061	1106

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EXAMINER
LAMB, TWYLER MARIE

ART UNIT	PAPER NUMBER
2622	

DATE MAILED: 12/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Office Action Summary		09/650,670	KURIHARA ET AL.
		Examiner	Art Unit	
		Twyler M. Lamb	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 August 2000*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2* .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Priority

1.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which

papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3.   Claims 1, 7 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by

Sato (US 6,055,061).

With regard to claims 1 and 13, Sato discloses an image processing apparatus

(laser printer 1000), comprising: a code information storage part (main body 100) that

stores code information for rendering (col 2, lines 59-66); a font storage part (font

storage unit 209) that stores character shape data (col 3, line 65 – col 4, line 3); and a

management part (printer control unit 1001) that receives the code information and

stores the information in the code information storage part (col 3, lines 1-3), wherein the

management part, for code information indicating a character, stores, in the code

information storage part (col 2, lines 59-66), reference information for referencing shape

data of the character within the font storage part (col 3, line 65 – col 4, line 3) and

stores, in the font storage part, the reference information pointing to the code

information referencing the character shape data in association with the shape data of

the character(col 3, line 65 – col 4, line 24).

With regard to claim 7, Sato discloses an image processing apparatus (laser

printer 1000), comprising: a code information storage part (main body 100) that stores

code information for rendering (col 2, lines 59-66); a font storage part (font storage unit

209) that stores character shape data (col 3, line 65 – col 4, line 3); and a management

part (printer control unit 1001) that receives the code information and stores the

information in the code information storage part (col 3, lines 1-3), wherein the

management part mutually connects pieces of code information indicating the same

character, stored in the code information storage part, as a mutual reference list

including the shape data of the character stored in the font storage part (col 2, lines 59-

66; col 3, line 65 – col 4, line 24).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set

forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 2-6, 8-12 and 14-16 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Sato (US 6,055,061) in view of Wada et al. (Wada) (5,414,448).

With regard to claims 2 and 8, Sato differs from claim 2 in that he does not

specifically teach further comprising: a character data generation part that generates

character shape data, wherein the management part, according to code information

indicating a new character, generates shape data of the new character by the character

data generation part and stores the data in the font storage part.

Wada discloses an information processing system that comprising: a character

data generation part (character/pattern generator 5) that generates character shape

data (col 6, lines 19-21; col 6, line 25 – col 8, line 39), wherein the management part,

according to code information indicating a new character, generates shape data of the

new character by the character data generation part and stores the data in the font

storage part (col 6, lines 19-21; col 6, line 25 – col 8, line 39).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to have modified Sato to include further comprising: a character data

generation part that generates character shape data, wherein the management part,

according to code information indicating a new character, generates shape data of the

new character by the character data generation part and stores the data in the font

storage part as taught by Wada. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Sato by the teaching of Wada to have the ability to generate both character and pattern data as taught by Wada in col 6, lines 6-11.

With regard to claims 3 and 9, Sato as modified differs from claim 3 in that he does not specifically teach wherein the management part, when storing the character shape data generated by the character data generation part in the font storage part, if there is no free space in the font storage part, transfers the character shape data stored in the font storage part and reference information pointing to code information referencing the shape data to the code information storage part, and modifies the reference information for referencing the shape data, stored in the code information storage part, in association with code information referencing the shape data.

Wada discloses an information processing system that includes wherein the management part, when storing the character shape data generated by the character data generation part in the font storage part, if there is no free space in the font storage part, transfers the character shape data stored in the font storage part and reference information pointing to code information referencing the shape data to the code information storage part, and modifies the reference information for referencing the shape data, stored in the code information storage part, in association with code information referencing the shape data (col 7, line 54 – col 8, line 43).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Sato to include wherein the management part, when

storing the character shape data generated by the character data generation part in the

font storage part, if there is no free space in the font storage part, transfers the

character shape data stored in the font storage part and reference information pointing

to code information referencing the shape data to the code information storage part, and

modifies the reference information for referencing the shape data, stored in the code

information storage part, in association with code information referencing the shape

data as taught by Wada. It would have been obvious to one of ordinary skill in the art at

the time the invention was made to have modified Sato by the teaching of Wada to have

the ability to generate both character and pattern data as taught by Wada in col 6, lines

6-11.

With regard to claims 4 and 10, Sato as modified differs from claim 4 in that he

does not specifically teach wherein the management part, when the code information

storage part runs out of a free space to store the code information, deletes code

information for rendering from the code information stored in the code information

storage part before being replaced by code information for subsequent rendering, so as

to increase free space of the code information storage part, while if the deleted code

information indicates a character, invalidates reference information pointing to the code

information from among character shape data corresponding to the code information.

Wada discloses an information processing system that includes wherein the

management part, when the code information storage part runs out of a free space to

store the code information, deletes code information for rendering from the code

information stored in the code information storage part before being replaced by code

information for subsequent rendering, so as to increase free space of the code

information storage part, while if the deleted code information indicates a character,

invalidates reference information pointing to the code information from among character

shape data corresponding to the code information (col 7, line 54 – col 8, line 43).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to have modified Sato to include wherein the management part, when

the code information storage part runs out of a free space to store the code information,

deletes code information for rendering from the code information stored in the code

information storage part before being replaced by code information for subsequent

rendering, so as to increase free space of the code information storage part, while if the

deleted code information indicates a character, invalidates reference information

pointing to the code information from among character shape data corresponding to the

code information as taught by Wada. It would have been obvious to one of ordinary skill

in the art at the time the invention was made to have modified Sato by the teaching of

Wada to have the ability to generate both character and pattern data as taught by Wada

in col 6, lines 6-11.

With regard to claims 5 and 11, Sato as modified differs from claim 5 in that he

does not specifically teach wherein the management part, when the code information

storage part runs out of a free space to store the code information, performs rendering

processing by using part or all of the code information stored in the code information

storage part, deletes the code information having performed the rendering processing

from the code information storage part, while if the deleted code information indicates a

character, invalidates reference information pointing to the code information from among character shape data corresponding to the code information and stores code information pointing to rendered data generated by the rendering processing in the code information storage part.

Wada discloses an information processing system that includes wherein the management part, when the code information storage part runs out of a free space to store the code information, performs rendering processing by using part or all of the code information stored in the code information storage part, deletes the code information having performed the rendering processing from the code information storage part, while if the deleted code information indicates a character, invalidates reference information pointing to the code information from among character shape data corresponding to the code information and stores code information pointing to rendered data generated by the rendering processing in the code information storage part (col 7, line 54 – col 8, line 43).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Sato to include wherein the management part, when the code information storage part runs out of a free space to store the code information, performs rendering processing by using part or all of the code information stored in the code information storage part, deletes the code information having performed the rendering processing from the code information storage part, while if the deleted code information indicates a character, invalidates reference information pointing to the code information from among character shape data corresponding to the code information

and stores code information pointing to rendered data generated by the rendering processing in the code information storage part as taught by Wada. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Sato by the teaching of Wada to have the ability to generate both character and pattern data as taught by Wada in col 6, lines 6-11.

With regard to claims 6 and 12, Sato as modified differs from claim 6 in that he does not specifically teach wherein the management part, when the code information indicates a character and is specified to render only part of the shape of the character, stores part of shape data to render the part in the code information storage part.

Wada discloses an information processing system that includes wherein the management part, when the code information indicates a character and is specified to render only part of the shape of the character, stores part of shape data to render the part in the code information storage part (col 6, lines 19-21; col 6, line 25 – col 8, line 39).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Sato to include wherein the management part, when the code information indicates a character and is specified to render only part of the shape of the character, stores part of shape data to render the part in the code information storage part as taught by Wada. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Sato by the teaching of Wada to have the ability to generate both character and pattern data as taught by Wada in col 6, lines 6-11.

With regard to claim 14, Sato discloses an image processing method that controls code information for rendering (col 2, lines 59-66); a font storage part (font storage unit 209) that stores character shape data (col 3, line 65 – col 4, line 3); and a management part (printer control unit 1001) that receives the code information and stores the information in the code information storage part (col 3, lines 1-3), wherein the management part, for code information indicating a character, stores, in the code information storage part (col 2, lines 59-66), reference information for referencing shape data of the character within the font storage part (col 3, line 65 – col 4, line 3) and stores, in the font storage part, the reference information pointing to the code information referencing the character shape data in association with the shape data of the character(col 3, line 65 – col 4, line 24).

Sato differs from claim 14 in that he does not specifically teach when a different piece of code information indicating the same character as indicated by the code information is already stored in the code information storage part, changing reference information associated with the different piece of code information to the reference information pointing to the code information, based on the reference information stored in the font storage part in association with the shape data of the character, and storing, in the code information storage part, the reference information pointing to the different piece of code information in association with the code information.

Wada discloses an information processing system that includes when a different piece of code information indicating the same character as indicated by the code information is already stored in the code information storage part, changing reference

information associated with the different piece of code information to the reference

information pointing to the code information, based on the reference information stored

in the font storage part in association with the shape data of the character, and storing,

in the code information storage part, the reference information pointing to the different

piece of code information in association with the code information (col 6, lines 19-21; col

6, line 25 – col 8, line 39).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to have modified Sato to include when a different piece of code

information indicating the same character as indicated by the code information is

already stored in the code information storage part, changing reference information

associated with the different piece of code information to the reference information

pointing to the code information, based on the reference information stored in the font

storage part in association with the shape data of the character, and storing, in the code

information storage part, the reference information pointing to the different piece of code

information in association with the code information as taught by Wada. It would have

been obvious to one of ordinary skill in the art at the time the invention was made to

have modified Sato by the teaching of Wada to have the ability to generate both

character and pattern data as taught by Wada in col 6, lines 6-11.

With regard to claim 15, Sato discloses an image forming apparatus (laser printer

1000) that forms an image according to input data (col 2, lines 55-66), comprising: an

input data analysis part (format analyzer 204) that analyzes the input data and classifies

the data by type (col 3, lines 32-51); (font storage unit 209) that stores character shape data to be rendered (col 3, line 65 – col 4, line 3).

Sato differs from claim 15 in that he does not specifically teach a character data processing part that converts the input data to render a character classified by the input data analysis part into intermediate code information; one or more data processing parts, each of which converts input data to render an object other than a character into intermediate code information according to the type; an intermediate code information storage part that stores the intermediate code information; an intermediate code processing part that stores, in the intermediate code information storage part, the intermediate code converted by the data processing part and performs rendering processing according to the intermediate code stored in the intermediate code information storage part; and an output part that forms an image rendered by the intermediate code processing part on a recording medium, wherein the character data processing part generates intermediate code information indicating a character and passes reference information for referencing the shape data of the character along with the intermediate code information to the intermediate code information storage part to store them in the code information storage part, the shape data being stored in the font storage part, and stores, in the font storage part, reference information pointing to code information referencing the shape data of the character in association with the shape data of the character.

Wada discloses an information processing system that includes a character data processing part (character/pattern generator 5) that converts the input data to render a

character classified by the input data analysis part into intermediate code information

(col 6, lines 19-21; col 6, line 25 – col 8, line 39); one or more data processing parts,

each of which converts input data to render an object other than a character into

intermediate code information according to the type (col 6, lines 19-21; col 6, line 25 –

col 8, line 39); an intermediate code information storage part (built-in memory 208) that

stores the intermediate code information (col 6, lines 59-61); an intermediate code

processing part that stores, in the intermediate code information storage part, the

intermediate code converted by the data processing part and performs rendering

processing according to the intermediate code stored in the intermediate code

information storage part (col 6, lines 19-21; col 6, line 25 – col 8, line 39); and an output

part (output engine 4) that forms an image rendered by the intermediate code

processing part on a recording medium (col 6, lines 18-19; col 7, lines 54-60), wherein

the character data processing part generates intermediate code information indicating a

character and passes reference information for referencing the shape data of the

character along with the intermediate code information to the intermediate code

information storage part to store them in the code information storage part, the shape

data being stored in the font storage part, and stores, in the font storage part, reference

information pointing to code information referencing the shape data of the character in

association with the shape data of the character (col 6, lines 19-21; col 6, line 25 – col

8, line 39).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to have modified Sato to include a character data processing part that

converts the input data to render a character classified by the input data analysis part

into intermediate code information; one or more data processing parts, each of which

converts input data to render an object other than a character into intermediate code

information according to the type; an intermediate code information storage part that

stores the intermediate code information; an intermediate code processing part that

stores, in the intermediate code information storage part, the intermediate code

converted by the data processing part and performs rendering processing according to

the intermediate code stored in the intermediate code information storage part; and an

output part that forms an image rendered by the intermediate code processing part on a

recording medium, wherein the character data processing part generates intermediate

code information indicating a character and passes reference information for

referencing the shape data of the character along with the intermediate code

information to the intermediate code information storage part to store them in the code

information storage part, the shape data being stored in the font storage part, and

stores, in the font storage part, reference information pointing to code information

referencing the shape data of the character in association with the shape data of the

character as taught by Wada. It would have been obvious to one of ordinary skill in the

art at the time the invention was made to have modified Sato by the teaching of Wada

to have the ability to generate both character and pattern data as taught by Wada in col

6, lines 6-11.

With regard to claim 16, Sato discloses an image forming apparatus (laser printer

1000) that forms an image according to input data (col 2, lines 55-66), comprising: an

input data analysis part (format analyzer 204) that analyzes the input data and classifies the data by type (col 3, lines 32-51); (font storage unit 209) that stores character shape data to be rendered (col 3, line 65 – col 4, line 3).

Sato differs from claim 16 in that he does not specifically teach a character data processing part that converts the input data to render a character classified by the input data analysis part into intermediate code information; one or more data processing parts, each of which converts input data to render an object other than a character into intermediate code information according to the type; an intermediate code information storage part that stores the intermediate code information; an intermediate code processing part that stores, in the intermediate code information storage part, the intermediate code converted by the data processing part and performs rendering processing according to the intermediate code stored in the intermediate code information storage part; and an output part that forms an image rendered by the intermediate code processing part on a recording medium, wherein the character data processing part generates intermediate code information indicating a character and passes reference information for referencing the shape data of the character along with the intermediate code information to the intermediate code information storage part to store them in the code information storage part, the shape data being stored in the font storage part, and stores, in the font storage part, reference information pointing to code information referencing the shape data of the character in association with the shape data of the character.

Wada discloses an information processing system that includes a character data

processing part (character/pattern generator 5) that converts the input data to render a

character classified by the input data analysis part into intermediate code information

(col 6, lines 19-21; col 6, line 25 – col 8, line 39); one or more data processing parts,

each of which converts input data to render an object other than a character into

intermediate code information according to the type (col 6, lines 19-21; col 6, line 25 –

col 8, line 39); an intermediate code information storage part (built-in memory 208) that

stores the intermediate code information (col 6, lines 59-61); an intermediate code

processing part that stores, in the intermediate code information storage part, the

intermediate code converted by the data processing part and performs rendering

processing according to the intermediate code stored in the intermediate code

information storage part (col 6, lines 19-21; col 6, line 25 – col 8, line 39); and an output

part (output engine 4) that forms an image rendered by the intermediate code

processing part on a recording medium (col 6, lines 18-19; col 7, lines 54-60), wherein

the character data processing part mutually connects pieces of intermediate code

information indicating the same character as stored in the intermediate code information

storage part as a mutual reference list including the shape data of the character stored

in the font storage part (col 6, lines 19-21; col 6, line 25 – col 8, line 39).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the

invention to have modified Sato to include a character data processing part that

converts the input data to render a character classified by the input data analysis part

into intermediate code information; one or more data processing parts, each of which

converts input data to render an object other than a character into intermediate code

information according to the type; an intermediate code information storage part that

stores the intermediate code information; an intermediate code processing part that

stores, in the intermediate code information storage part, the intermediate code

converted by the data processing part and performs rendering processing according to

the intermediate code stored in the intermediate code information storage part; and an

output part that forms an image rendered by the intermediate code processing part on a

recording medium, wherein the character data processing part mutually connects pieces

of intermediate code information indicating the same character as stored in the

intermediate code information storage part as a mutual reference list including the

shape data of the character stored in the font storage part as taught by Wada. It would

have been obvious to one of ordinary skill in the art at the time the invention was made

to have modified Sato by the teaching of Wada to have the ability to generate both

character and pattern data as taught by Wada in col 6, lines 6-11.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Twyler Lamb whose telephone number is 703 - 308-

8823. The examiner can normally be reached on M-TH (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Edward L Coles can be reached on 703-308-4712. The fax phone numbers

for the organization where this application or proceeding is assigned are 703-872-9306

for regular communications and 703-872-9314 for After Final communications.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231

or faxed to:

(703) 872-9314

(for informal or draft communications, such as proposed amendments to be

discussed at an interview; please label such communications "PROPOSED" or
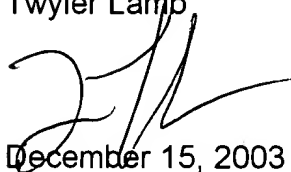
"DRAFT")

or hand-carried to:

Crystal Park Two

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Twyler Lamb,

December 15, 2003